LEADER:

J Shanahan



INTENT

"The only way to learn mathematics is to do mathematics" Paul Halmos

Mathematics is a building block for daily life which has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology, and engineering.

Therefore, we aim to prepare all children at Holy Name to be able to use and apply mathematical knowledge, skills and understanding to everyday situations with confidence.

Within our mathematics curriculum we endeavour to develop children who will:

- become fluent in the fundamentals of mathematics.
- reason mathematically,
- can solve problems by applying their mathematics.

We primarily use the White Rose Mathematics scheme. However, a variety of resources from other publishers are used to enhance, extend and further challenge the mathematical learning which takes place at Holy Name. We are also able to change the pace and content of our mathematics lessons to reflect the needs of class groups and individual children. This enables us to promote mastery for all.

CONTENT

The national curriculum for mathematics intends to ensure that all pupils:

- Become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- 2. Reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.
- 3. Can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions. Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas.

Early Years

Children in the Early years will be taught how to develop their mathematical thinking in line with the development matters framework 2021 and will include:

- Subitise (recognise quantities without counting) up to 5; and have a deep understanding of numbers to 10, including the composition of each number.
- Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.
- Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.

CULTURAL CAPITAL

Mathematics plays and integral part throughout our whole curriculum.

Children use and apply mathematics throughout various subjects such as **science** and **design technology** - to record results from investigations and designing, measuring, and selling products which they have made.

Children also use their mathematical skills to raise money for charity during key points of the year such as the Lenten fayre. Children are responsible for their budget and counting all money raised. We acknowledge that all students, irrespective of age, can develop positive mathematical identities

Therefore, we approach mathematics at Holy Name in a variety of ways. We use mathematical equipment to support children through the stages of concrete, pictorial and abstract mathematics with clear modelling and direct instruction.

and become powerful mathematical learner.

PEDAGOGY

We also support children to work with partners and in small groups to allow them to see themselves as mathematical learners and to aid the development of reasoning skills.

VOCABULARY
Pupils will develop an understanding and accurate

use of mathematical vocabulary which has been specified on a progression map.

They will use these to articulate, explain and reason mathematical processes, problems, and concepts.

By the end of KS2 children are expected to be able to read, spell and pronounce Mathematical vocabulary correctly.

RETENTION

By using the White Rose mathematics scheme as a basis for our mathematics teaching, we can use flash back four resources to support retention of mathematical skills throughout the year from past learning.

Flashback four will take place at the start of each lesson which allows the children to recall and develop mental mathematical skills from previous blocks and support them in retaining mathematical concepts.

ASSESSMENT

At the start of each topic block children will complete a pre-block test to ascertain their mathematical understanding in the specific area of mathematics to allow teachers to assess the retention of mathematical knowledge from previous year groups. This will then be repeated approximately two weeks after the end of the topic to demonstrate progress and retained knowledge.

LEARNING ENVIRONMENT

Each classroom has a mathematics working wall which is updated throughout the topic to show and explain key vocabulary, calculation methods and display some high-quality children's work. As mathematics is taught in blocks through the white Rose scheme each working wall will be added to as the block progresses.

Children will always have access to a variety of manipulatives to support and scaffold learning as and when needed. Children will also be encouraged to use whiteboards/jottings to support their working memory.

SMSVC

Our aim is to develop resilience and perseverance through challenge. . Students are encouraged to see the sequences, patterns, symmetry, and scale both in the man-made and the natural world and to use maths as a tool to explore it more fully.

They are also encouraged to actively use their problem solving and teamwork skills which are fundamental to mathematics through creative thinking, discussion, explaining and presenting ideas.